

IN THE SPECIFICATION

Please amend the specification as follows:

Replace the first full paragraph on page 3 of the specification with the following:

According to the IEEE 802.11b high-rate wireless communications standard implementing direct sequence spread spectra techniques, bit stream data may be encoded using a standard known as Complementary Code Keying (CCK). This CCK encoding scheme is used to achieve 5.5 Mbps or 11 Mbps in wireless LANs. Rather than using the Barker code, which is the standard 11-bit chipping sequence used to encode data bits, CCK requires that data be encoded using a series of codes called Complementary Sequences. Because there are 256 unique code words that can be used to encode the signal, up to 8 bits can be represented by any one particular code word (assuming an 11 Mbps bit stream).

Replace the paragraph between pages 5-6 of the specification with the following:

The present invention is directed to a digital communications system and a computationally efficient decoding structure for decoding data received in the form of symbols modulated according

to Complementary Code Keying (CCK) technique. The system of the invention will be described herein for the case of an 11 Mbps digital data stream in accordance with the IEEE 802.11b standard, however, it is understood that skilled artisans may readily apply the principles described herein to other bit stream data rates in accordance with the standard, e.g., 5.5 Mbps.

Replace the first full paragraph on page 6 of the specification with the following:

In a first embodiment of the invention, as shown in Figure 2, the system includes a receiver device comprising, in part, a Decision Feedback Equalizer ("DFE") 20 such as the equalizer used in a 802.11b communications receiver. The DFE 20 may be a fractionally spaced decision-feedback equalizer (DFE) having a forward filter 12' with taps that are fractionally ($T/2$) spaced. This forward filter 12' will perform both matched filtering and equalization. The equalizer 20 further includes a feedback filter 16' that may be sample spaced, i.e., T spaced, where $\frac{T}{2}$ denotes the sample rate, which is also the chip rate, e.g., 11MHz. The input to the equalizer 20 is assumed to be $T/2$ spaced, i.e., sampled at 22 MHz. The DFE 20 may be used for all the possible 802.11b communications modes, i.e., 1, 2, 5.5 and 11 Mbps. In the

first embodiment, as shown in Figure 2, the input to the feedback filter section 16' comprises the output of the slicer 14', which provides an estimate of the true transmitted chips and may include either a BPSK or QPSK slicer, depending on the transmitted mode. Equation (1) describes this structure as follows: